National Institute of Environmental Health Sciences

Farmer health and adaptive capacity in the face of climate change and variability. Part 2: Contexts, personal attributes and behaviors

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Abstract:

This study extends the emerging body of research on farmer adaptation to climate change, by segmenting farmers on the basis of specific attributes (health, values, belief about climate change, sense of responsibility for climate change, desire to change, social, human and financial capitals and farmer demographics) and considering such attributes as critical social aspects of the contextualized capacity to adapt. The segmental analysis was based on a nationally representative sample of 3,993 farmers concerned with farmer adaptation of climate risks. The resulting data were subjected to two-step cluster analysis to identify homogenous groups of farmers based on factors related to climate change adaptation. A three-cluster solution was identified wherein farmers were distinguishable on the basis of belief in climate change, desire for financial assistance and advice, social connectedness, information seeking, and adverse farm conditions. The largest group (Cluster 1: 55%) was characterized by farmers who recognized being affected by drought and drying and who were actively engaged in adaptive practices, despite the fact that they had little income and poor farm resources. One third of these farmers reported that their health was a barrier to sustained activity in farming. Cluster 2 (26%) was characterized by farmers not readily affected by drying, who enjoyed good incomes, good health and better farming conditions. They expressed little desire to adapt. The smallest cluster (Cluster 3: 19%) was also characterized by farmers who recognized that they were affected by drying. However, despite a desire to adapt, they had very little means to do so. They reported the poorest natural resources and the poorest health, despite being younger. The findings suggest that it is the intent to adapt, starting from where people are at, which is a more important indicator of the capacity to work towards sustainable practices than assets tests alone.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210597

Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Policymaker, Researcher

Exposure :

weather or climate related pathway by which climate change affects health

Unspecified Exposure

Geographic Feature:

resource focuses on specific type of geography

Rural

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Racial/Ethnic Subgroup, Workers

Other Racial/Ethnic Subgroup: farmers

Resource Type:

format or standard characteristic of resource

Research Article

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content